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Evaluation of the Environmental Assessment Program

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The evaluation was conducted in accordance with the 2016 Treasury Board (TB) Policy on Results. It was identified in the 2015 Departmental Risk-Based Audit and Evaluation Plan.

This report was approved by the Deputy Heads of Environment and Climate Change Canada on March 28, 2018. It is available on the Environment and Climate Change Canada website in both official languages.

This report was prepared by the Evaluation Division of the Audit and Evaluation Branch.

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List of acronyms and abbreviations

CEAA	Canadian Environmental Assessment Act
CEA Agency	Canadian Environmental Assessment Agency
CNSC	Canadian Nuclear Safety Commission
CSFB	Corporate Services and Finance Branch
CWS	Canadian Wildlife Service
DFO	Department of Fisheries and Oceans Canada
DP (or RPP)	Departmental Plan (formerly Report on Plans and Priorities)
DRR (or DPR)	Departmental Results Report (formerly Departmental Performance Report)
EA	Environmental Assessment
EA Program	Environmental Assessment Program
ECCC	Environment and Climate Change Canada
EPB	Environmental Protection Branch
EPOD	Environmental Protection Operations Directorate
ESB	Environmental Stewardship Branch
FA	Federal Authority
FAA	Financial Administration Act
MBCA	Migratory Birds Convention Act
MPMOI	Major Projects Management Office Initiative
MOU	Memorandum of Understanding
MSC	Meteorological Service of Canada
NEB	National Energy Board
NRCan	Natural Resources Canada
RA	Responsible Authority
RDGO	Regional Directors General Offices
SARA	Species at Risk Act
SPB	Strategic Policy Branch
STB	Science and Technology Branch

Executive summary

Environment and Climate Change Canada's (ECCC's) Audit and Evaluation Branch conducted an evaluation of the department's activities related to the Environmental Assessment Program (EA Program), covering activities from fiscal year 2012 to 2013 to fiscal year 2016 to 2017.

The federal government has identified an ongoing need for regulatory processes and a regulatory regime that supports responsible and sustainable resource development. Environmental assessments are an important component of this regulatory regime. An environmental assessment (EA) is a tool for planning and decision making, designed to ensure that adverse environmental impacts are avoided or minimized before they occur.

ECCC's EA Program aims to support evidence-based decision making and policy development through the provision of scientific and technical expertise to EA processes. Drawing on the contributions of ECCC experts, the EA Program provides authorities leading environmental assessments with advice on the characterization of environmental effects resulting from a project and the efficacy of mitigation for those effects. The advice relates to areas falling within ECCC's mandate, such as migratory birds and their habitats, preservation of species at risk and the management of toxic substances.

The evaluation focuses on the EA Program's activities in support of federal, northern and provincial EA processes. The following activities were scoped out of the evaluation:

- ECCC's participation in the Major Projects Management Office Initiative (MPMOI)
- ECCC's participation in the Oil Sands Monitoring Program
- G&C expenditures related to ecosystem assessment activities
- Scientific activities related to ecosystem assessment, including wildlife toxicology, which are also undertaken as part of the Ecosystem and Environmental Assessment Sub-Program (PAA sub-program 1.3.2)

This is the first evaluation conducted which focuses specifically on ECCC's role in support of the EA process. Data collection methods used for the evaluation included a document review, key informant interviews, two case studies and a file review.

Conclusions

Relevance

There is a continued need for the EA Program's contributions. It offers scientific and technical expertise to EA processes, to ensure that decisions concerning development initiatives are evidence-based and adverse environmental impacts associated with those activities are avoided or minimized. The EA Program is aligned with current federal priorities and fulfills the requirement outlined in legislation that the department provide its expertise to environmental assessments. Most stakeholders agreed that ECCC's role in EA processes is unique, appropriate and necessary.

Stakeholders felt that in the absence of the EA Program, gaps would exist in addressing environmental needs.

Performance – effectiveness

Overall, evidence indicates that the EA Program is making progress towards achieving its expected results.

Expert advice from ECCC branches is generally well reflected in the consolidated advice put forward by the program to authorities who conduct EAs. For the most part, ECCC expert information and knowledge are considered in decision makers' recommendations, conclusions and final EA documents. In addition to contributing expert information and advice to inform EAs for specific projects, over the evaluation period, ECCC has contributed to the development of broader Government of Canada EA policies and frameworks.

There is general agreement that final EA documents appropriately characterize environmental effects relevant to ECCC's mandate, including on issues such as surface water quality, migratory birds and terrestrial species at risk.

Data to assess long-term objectives is limited; however, there is evidence of reduced environmental impacts associated with EA Program activities over the evaluation period.

Key informants identified complexities and some uncertainty regarding the scope and nature of the role of ECCC experts in providing mitigation-related advice. Although this is an important issue, both the issue and the ability to address it extend beyond the scope of the program.

The EA Program has implemented measures aimed at improving practices related to consultation with Indigenous peoples. Despite this, incorporating Indigenous perspectives or concerns in a consistent fashion into the consolidated advice put forward by the EA Program was flagged as an area for ongoing improvement. Engagement and participation of Indigenous peoples is a key consideration in the newly proposed changes to the EA regime. After greater clarity on the approach becomes available, the EA Program will need to revisit its work in this area.

The EA Program has taken an active role in follow-up activities for specific projects, but the EA Program would benefit from receiving greater clarity from authorities responsible for EAs regarding its role and responsibilities in post-EA follow-up activities.

The EA Program's approval process serves the important function of ensuring that scientific advice from various sources within ECCC is consistent, of high quality, focused and relevant. However, there was a relatively widespread perception among stakeholders consulted for the evaluation that the internal approval process was "heavy" and negatively impacted the timelines available for experts to do their work and perform quality assurance. Additionally, the need to more clearly communicate the levels of approval needed and the role of regional directors was identified.

The enactment of the Canadian Environmental Assessment Act (CEAA) 2012 resulted in the application of EAs to larger scale, more complex projects, new legislated timelines and enforceable conditions. Further, EA Program staff is geographically dispersed. They also manage large volumes

of information and documents for a high number of concurrent projects. Despite attempts to develop an in-house system to support information management, the EA Program continues to operate without an overarching project tracking and data integration tool.

Performance – design and delivery

Evaluation results indicate that the design of the EA Program is generally appropriate for achieving expected results and that the program has been implemented as intended. The "one window' approach and the EA Program's three-tiered expert support model are elements of the program design that are working well and are considered to be best practices.

Evidence suggests that, for the most part, governance of the EA Program is functioning as intended. The roles and responsibilities of experts providing advice to EAs within EA Program are clear and well understood. Information sharing and communication on a variety of topics has been facilitated by the various committees with a role in the EA Program on planning, priority setting or decision making.

The EA Program currently has no formal performance measurement strategy. Performance information is lacking for many of the program's expected results. It should be noted that work is currently underway to develop a performance measurement strategy as part of the implementation of the Treasury Board Policy on Results.

Recommendations

The following recommendations are addressed to the Assistant Deputy Minister of the Environmental Protection Branch.

1. Develop and implement improved project tracking and information management practices.
2. Review and identify opportunities to clarify and streamline, where appropriate, internal approval of expert advice provided through the Environmental Assessment Program.

The Assistant Deputy Minister of the Environmental Protection Branch agrees with the recommendations and has developed a management action plan that appropriately addresses each recommendation.

1. Context

Projects such as those related to construction, natural resource development and infrastructure or facility expansion, decommissioning or abandonment are very important to the Canadian economy. However, they can have significant environmental and social impacts. Such initiatives can contribute to greenhouse gas emissions and global climate change, marine pollution, release of toxic wastes, habitat loss and species eradication. These environmental impacts, in turn, can affect human health and traditional access to lands and resources and are therefore closely linked to social issues.

An environmental assessment (EA) is a tool for planning and decision making, designed to ensure that significant adverse environmental and social impacts of proposed initiatives are avoided or minimized before they occur.

Under the Canadian Environmental Assessment Act, 2012 (CEAA 2012), three Responsible Authorities (RA), namely the Canadian Environmental Assessment (CEA) Agency, the Canadian Nuclear Safety Commission (CNSC) and the National Energy Board (NEB), manage the EA process for designated projects under the Act.[1] EAs can be conducted either by one of the three RAs or by a review panel appointed by the Minister of the Environment and Climate Change.[2] EA processes in the territories are managed by various regulatory boards established under Northern environmental assessment legislation.

Environment and Climate Change Canada (ECCC) is a designated federal authority under CEAA 2012. Federal authorities are required to provide specialist or expert information on issue areas within their mandate, at the request of an RA, review panel or other government body or jurisdiction responsible for the EA.

The EA Program provides advice and expertise to the EA within a complex and evolving legislative framework. Depending on when a project was initiated, some EAs may be operating under rules provided by previous legislation, while new EAs follow CEAA 2012 procedures. Proposed changes to the current EA regime were tabled in Parliament on February 8, 2018, following a comprehensive review of federal environmental and regulatory processes including a review of federal EA processes. Until the proposed changes are passed by Parliament, existing laws and interim principles for project reviews will continue to apply.

ECCC participates in EA processes (federal, provincial and territorial and Northern) through activities undertaken by its Environmental Assessment Program (EA Program). This report presents the results of the evaluation of ECCC's EA Program.

[1] The federal government may have sole responsibility for EAs, or may conduct them in collaboration with other jurisdictions (using provincial substitution agreements).

[2] For EAs conducted by a review panel, panel members are appointed by the Minister of the Environment and Climate Change and supported by the CEA Agency.

ECCC's Environmental Assessment Program

ECCC's EA Program aims to support evidence-based decision making and policy development through the provision of scientific and technical expertise. Drawing on contributions from ECCC experts, the EA Program is able to provide the RAs with advice on a wide variety of environmental issues falling within ECCC's mandate such as the implications of climate change, the management of toxic substances, pollution prevention and the preservation of migratory birds and species at risk (for a complete list of topics, consult Appendix A). The EA Program also represents the department in RA-led consultations with Indigenous communities and is mandated to provide advice related to potential environmental effects that may have an impact on the traditional use of lands and resources by Indigenous peoples. In this way, the program is designed to address recognized societal and environmental needs.

The main activity of ECCC's EA Program is the provision of scientific expertise, guidance and advice to decision makers to support the environmental assessment of designated projects under CEAA 2012[3] and additional federal EA legislation in the North, including:

- the Yukon Environmental and Socio-economic Assessment Act
- the Mackenzie Valley Resource Management Act
- the Nunavut Land Claims Agreement and Nunavut Planning and Projects Assessment Act
- the Inuvialuit Final Agreement

The EA Program also contributes scientific expertise to provincial and territorial environmental assessments.

In addition to its work on environmental assessments, EA Program activities involve:

- conducting environmental reviews of projects on federal lands and projects occurring outside Canada, pursuant to sections 67 to 72 of CEAA 2012
- contributing scientific expertise to other federal departments in their efforts to meet section 67 responsibilities

The EA Program is administered by the Environmental Protection Operations Directorate (EPOD) within ECCC's Environmental Protection Branch. EPOD is responsible for ensuring the consistency of the EA Program's corporate approaches and national policies and procedures. Regional EPOD groups are responsible for program delivery and working with departmental experts and specialists to coordinate the provision of advice.

The EA Program uses a three-tiered expert support model, which works as follows:

- **Tier 1 EA Coordinators** are science team leaders located in EPOD. They are responsible for understanding the context of the project, assessing the advice needed and coordinating the provision of ECCC's science from expert support and other scientific experts in the

[3] In addition to the Inuvialuit Final Agreement, CEAA 2012 also applies to federal lands south of the 60th parallel and to some areas in the Northwest Territories.

department. Their role is to frame the issues and identify the appropriate experts to participate in the EA. They also act as a liaison with internal stakeholders, such as experts from other departments and senior management, and external stakeholders, like proponents or other federal authorities, for the review of information related to a project's EA process.

- **Tier 2 EA Expert Support Officials** provide advice within the scope of their expertise (for example, water quality, air quality or migratory birds). These experts are located in EPOD, as well as in other directorates and branches within ECCC. These experts can also coordinate the provision of expertise from Tier 3 experts.
- **Tier 3 Experts** are specialists who provide input relevant to their area of expertise. These experts are not devoted to providing expertise to environmental assessments. They are departmental experts, such as research scientists, who maintain their specialization through the day-to-day work they do for the department.
- Both Tier 2 and Tier 3 experts may provide expert testimony in their subject areas at panel hearings and stakeholder meetings and attend meetings with stakeholders organized by the EA Coordinators.

ECCC advice is used by decision makers across different levels of government, environmental and non-governmental organizations, industry, the research community and the general public.

A detailed description of the program and financial information can be found in Appendix A.

About the evaluation

Purpose and scope

The evaluation was conducted to meet the information needs of senior management. An evaluation of the EA Program is not mandatory under the requirements of Treasury Board Policy on Results. Although components of ECCC's activities related to EAs have been previously evaluated as part of an evaluation of the Major Projects Management Office Initiative led by Natural Resources Canada (NRCan), this is the first evaluation conducted that focuses specifically on ECCC's role in support of the EA process. It addresses the relevance and performance of ECCC's EA Program activities over the five-year period from fiscal year 2012 to 2013 to fiscal year 2016 to 2017.

The following activities were scoped out of the evaluation:

- ECCC's participation in the Major Projects Management Office Initiative (MPMOI)
- ECCC's participation in the Oil Sands Monitoring Program[4]
- G&C expenditures related to ecosystem assessment activities

[4] Activities related to oil sands monitoring were given limited focus in the evaluation, since they were recently reviewed by the Commissioner of the Environment and Sustainable Development (CESD), the Expert Panel on Assessing the Scientific Integrity of the Canada-Alberta Joint Oil Monitoring and as part of ECCC's Evaluation of the Water Quality and Aquatic Ecosystems Health Program.

- Scientific activities related to ecosystem assessment, including wildlife toxicology, which are undertaken as part of the Ecosystem and Environmental Assessment Sub-Program, but are not directly part of the EA Program[5]

Methodology

A detailed description of the evaluation questions and methodology is included in Appendix C.

Limitations were encountered while conducting the evaluation and strategies were put in place to mitigate their impact, as follows:

Limitations	Mitigation strategies
No EAs from the Canadian Nuclear Safety Commission (CNSC) or the Northern Regimes were started and completed within the evaluation timeframe. As a result, the file review did not include any information on EA Program activities related to EA processes under these authorities.	Key informant interviews included representatives of all Responsible Authorities under CEAA 2012, as well as various Northern review boards. Therefore, to the extent possible, key informant interviews were used to fill gaps in information on the EA Program's role in EA processes for which documentation and data were limited. As the evaluation focuses on EA Program activities over a specific five-year period, somewhat less emphasis on the CNSC and Northern EA processes is appropriate, given that the EA Program's role in these processes from 2012–13 to 2016–17 was limited.
The sample size for the key informant interviews was relatively small for certain groups of stakeholders (in particular, proponents, provincial partners and representatives of the various authorities involved in Northern review processes).	Key informant interviews are not meant to be representative of the views of entire stakeholder groups, particularly when sample sizes are small. A scale and legend (see Appendix C) were used to facilitate clear reporting on the key informant interviews and to identify the proportion of interviews in which particular views were expressed. In general, findings were not developed using key informant interviews alone; rather, interview results were triangulated with, and used to support findings from other lines of evidence.

[5] In ECCC's 2017–18 Program Alignment Architecture, the EA Program is part of a broader program called the Ecosystem and Environmental Assessment Program (sub-program 1.3.2). With the department's transition to its new Departmental Results Framework in fiscal year 2018 to 2019, the EA Program will be a distinct program.

Key findings are presented in the next three sections. A rating is provided for each core issue assessed, based on a judgment of the evaluation findings. A summary of ratings for the evaluation questions is provided in Appendix C.

Statement	Definition
Expectations met	The intended outcomes or goals have been achieved.
Further work required	Considerable progress has been made to meet the intended outcomes or goals, but attention is still needed.
Priority attention required	Insufficient progress has been made to meet the intended outcomes or goals and attention is needed on a priority basis.
Unable to assess	Insufficient evidence is available to support a rating.

2. Findings: relevance

This section summarizes the findings related to the relevance of ECCC's involvement in the Environmental Assessment Program (EA Program). It does this by exploring the demonstrable need for the program, its alignment with government priorities and its consistency with the roles, responsibilities and jurisdiction of the federal government.

Relevance Criteria	Expectations met	Further work required	Priority attention required	Unable to assess
2.1 Continued need for the program	•			
2.2 Alignment with federal government priorities	•			
2.3 Consistency with federal roles and responsibilities	•			

2.1 Continued need for the program

Findings: There is a continued need for the EA Program's scientific and technical expertise within the EA processes. The EA Program contributions ensure that decisions concerning physical activities and initiatives are evidence-based, and that adverse environmental and social impacts associated with these activities are avoided or minimized.

While potentially economically important, projects such as those related to construction, natural resource development and infrastructure or facility expansion can have significant environmental and social impacts. These impacts can contribute to greenhouse gas emissions and global climate change, marine pollution, release of toxic wastes, habitat loss and species eradication. These environmental impacts, in turn, can affect human health and traditional access to lands and resources, and are therefore closely linked to social issues. As a large proportion of Canada's natural resources are found in remote locations and the North, the impacts associated with resource development are experienced disproportionately by Indigenous communities.

The federal government has identified an ongoing need for regulatory processes and a regulatory regime that supports responsible and sustainable resource development.[6] The Acts and agreements guiding EA processes in Canada endorse EAs as an important component of this regulatory regime.

There is a general consensus that ECCC's involvement in the EA process is appropriate and necessary. Most key informants, representing program staff, as well as both internal and external partners, agreed that ECCC is the most appropriate department to undertake the majority of the activities currently carried out through the EA Program. A few key informants (program representatives and external partners) pointed out that ECCC's review of the scientific and technical data provided by proponents lends a needed credibility to the EA process. Almost all key informants also agreed that

[6] The need for a regulatory regime in support of responsible, sustainable resource development is articulated in budget reports, Throne speeches and other documents related to Canada's Federal Sustainable Development Strategy (FSDS).

without ECCC's involvement, there would be gaps in the provision of expert or specialist knowledge and information to inform EA processes. According to some, even when experts outside of the EA Program comment on the same types of issues as EA Program experts, ECCC's EA Program contributions tend to add strength and validation to the contributions of other partners.

2.2 Alignment with federal priorities

Findings: The EA Program is aligned with current federal priorities related to environmental protection, responsible resource development, sustainable development, science-based decision making and meaningful consultation with Indigenous peoples.

Evidence indicates a strong alignment between the EA Program's objectives and federal government priorities. Recent federal budgets and Speeches from the Throne highlight the federal commitment to environmental protection and responsible resource development, as well as specific commitments to support the environmental assessment process. For example:

- The 2011 Speech from the Throne highlights the government's support for clean energy projects of national or regional significance, including the Lower Churchill hydroelectricity project, as well as its commitment to engaging with provinces, territories and industry "to improve the regulatory and environmental assessment process for resource projects, while ensuring meaningful consultation with affected communities, including Aboriginal communities."
- The 2015 Speech from the Throne expresses the federal government's commitment to both a clean environment and healthy economy, recognizes the interconnections between environmental protection and economic growth and mentions the government's commitment to introducing new EA processes.
- The 2016 federal budget report highlights commitments to "rebuild trust in Canada's environmental assessment process" by ensuring that EA decisions are informed by scientific evidence and that Indigenous peoples are more fully engaged in project review and monitoring processes. The budget report documents the funding commitments to authorities responsible for carrying out EAs.
- The Mandate Letter issued to the Minister of Environment and Climate Change in November 2015 also indicates that the department's role in EA processes is an ongoing federal priority. The Mandate Letter upholds the overall value of EAs and calls on the Minister to review Canada's EA processes and to introduce new, fair processes that will "ensure that decisions are based on science, facts and evidence and serve the public's interest".

2.3 Alignment with federal roles and responsibilities

Findings: The EA Program is the platform by which ECCC fulfills its statutory role in federal EA processes. It is aligned with the federal role by providing expertise in areas within ECCC's mandate, to support the EA process.

The EA Program addresses ECCC's statutory requirement to contribute expertise to EAs being conducted by federal RAs, as well as EAs that have been substituted to other jurisdictions, such as the provinces/territories, under CEAA 2012.

ECCC's role in federal EA processes is governed by a number of acts and agreements, including CEAA 2012 and the Northern EA legislation, which includes:

- the Yukon Environmental and Socio-economic Assessment Act
- the Mackenzie Valley Resource Management Act
- the Nunavut Planning and Project Assessment Act
- the Nunavut Land Claims Agreement
- the Inuvialuit Final Agreement

In addition, various acts, policies and agreements mandate ECCC to provide expertise on various topics applicable to environmental assessment (such as the Department of the Environment Act, Migratory Birds Convention Act, Canada Wildlife Act, Canada Water Act, International River Improvements Act, Fisheries Act, Canadian wildlife compliance and enforcement policy, Convention on Biological Diversity, Canadian Biodiversity Strategy and Canada-United States Air Quality Agreement).

3. Findings: expected results

This section summarizes the evaluation findings related to the achievement of the EA Program's expected results, including direct, intermediate and final outcomes. For a complete list of the EA Program's expected results, consult Appendix B.

3.1 Use of ECCC scientific expertise in decision making

Expected Result	Expectations met	Further work required	Priority attention required	Unable to assess
3.1 ECCC specialist/expert information or knowledge is reflected in the decision makers' recommendations and conclusions		•		

Findings: Overall, ECCC specialist and expert information and knowledge is well considered by both senior program representatives responsible for approving EA Program submissions and the authorities responsible for conducting EAs. The degree to which Indigenous perspectives and concerns are reflected in the scientific advice put forward by the EA Program was identified as an area for improvement. After greater clarity on the whole-of-government approach to Indigenous participation becomes available, the EA Program will need to revisit its approach in this area.

The EA Program's first direct outcome examines the degree to which decision makers within the three RAs make use of the information and knowledge provided by ECCC specialists and experts in their recommendations, conclusions and final EA documents. The assessment of this outcome looks both at the uptake of the information shared with the RAs, as well as the degree to which it is used.

Use of ECCC EA information or knowledge by Responsible Authorities

The evaluation found that for the most part, ECCC specialist and expert information or knowledge is reflected in the recommendations, conclusions and final EA documents of the RAs. The 2016 Departmental Results Report (DRR) includes performance results for fiscal years 2014 to 2015, 2015 to 2016 and 2016 to 2017 for the indicator "percentage of ECCC recommendations that are fully or partially incorporated into Decision Statements". In all three fiscal years, the department exceeded the target of 60% achievement of the performance indicator (actual results were 74%, 89% and 83% in fiscal years 2014 to 2015, 2015 to 2016 and 2016 to 2017 respectively).

Fifteen projects included in the file review had sufficient data to assess this indicator. For those projects, a large majority (132 of 172, or 79%) of all of ECCC's EA Program recommendations made in support of completed EAs conducted over the evaluation period were fully or partially incorporated into final EA reports by the authorities responsible for carrying out the EAs. This observation was supported by other lines of evidence, since the document review, case studies and key informant interviews also provided evidence of high uptake of EA Program contributions by EA authorities.

Almost all key informants representing all stakeholder groups agreed that ECCC specialist and expert information or knowledge is reflected to a large degree in decision makers' recommendations, conclusions and final EA documents. They noted that in most cases, ECCC's recommendations are factored into the decision statements, conditions of approval and monitoring plans developed by authorities responsible for EAs. In addition, a few key external informants emphasized that ECCC specialist and expert information is considered by environmental assessment authorities, even when it is not reflected in final EA documents.

This overall analysis shows a relatively high incorporation of ECCC information and knowledge into EA decision making. However, the evaluation results provided evidence of differences in the uptake of ECCC recommendations among the various RAs, and most notably between the Canadian Environmental Assessment (CEA) Agency and the National Energy Board (NEB). The file review found that for EAs under the authority of the CEA Agency, the overall uptake of EA Program recommendations was 84%. By contrast, for EAs under the authority of the NEB, the overall uptake of EA Program recommendations was only 62% (see Table 1).[7]

Table 1: incorporation of ECCC recommendations into the final EA report (file review results)

Responsible Authority	Number of projects*	Number of recommendations made by ECCC	Number of ECCC recommendations reflected in final EA documents	Overall uptake of ECCC recommendations
CEA Agency	8	107	90	84%
NEB	4	45	28	62%
Provincial EAs	3	20	18	90%
Total	**15**	**172**	**136**	**79%**

*Note: The values in this column represent the number of projects that fit the file review criteria and for which sufficient information was available to assess this indicator. While a total of 16 projects fit the criteria for inclusion in the file review, there was insufficient information on the incorporation of ECCC recommendations into the EA report for one NEB-led EA.

While the file review sample was relatively small, limiting broad applicability of the results, this variation in uptake between the CEA Agency and the NEB was also observed in the case studies and key informant interviews. Stakeholders consulted for the evaluation provided the following possible explanations:

- A few key external informants noted that the NEB has its own in-house expertise to draw on. As a result, it does not need to rely as heavily as the CEA Agency on expertise from ECCC's EA Program.
- Program representatives also noted that variations in uptake may be attributed in part to differences in the way each RA carries out the EA process. The EA process led by the CEA

[7] Out of all recommendations made by the EA Program to evaluations included in the file review, the CEA Agency received the largest proportion (62%). The NEB received about a quarter (26%) of EA Program recommendations, and British Columbia Substituted projects received the lowest proportion at 20% of all EA Program recommendations.

Agency allows for both formal and informal opportunities for providing and clarifying advice. The NEB's process tends to be more formal and limited to "on the record" contributions. There may be opportunities to improve communications with the NEB, to ensure that the value of the EA Program's contributions is well understood.

- More generally, interviewees in both the key informant interviews and case studies components mentioned that RAs may find it more challenging to incorporate ECCC advice into final EA recommendations when they receive contradictory advice from other sources (such as proponents or provincial and territorial environment departments).

Program representatives identified that the EA Program is currently engaged in discussions with the NEB to identify factors contributing to the NEB's lower uptake of its advice. They are also looking at ways to clarify the program's role in providing advice, particularly in relation to more complex areas within ECCC's mandate, such as provision of advice related to the Species at Risk Act (SARA). It was noted there may also be opportunities for the EA Program to better understand how and when the information is factored in over the life-cycle of a project such as when ECCC, as a regulator, issues an authorization for the proponent to proceed to the next step in the project.

It was beyond the scope of the evaluation to assess the broader impacts on environmental protection when RAs do not reflect certain EA Program recommendations in final EA conclusions and documents. However, stakeholders mentioned that the following are possible implications of EA documents not reflecting EA Program contributions:

- Certain areas within ECCC's mandate, which may be relevant for environmental protection, may be overlooked in EA decision making.
- The return on the investment of ECCC resources in contributing expertise may be reduced.

Approval of ECCC expert contributions by ECCC's EA Program

The findings discussed previously relate primarily to decisions made by RAs (external to ECCC) about whether or not to incorporate ECCC contributions into final EA recommendations, conclusions and documents. However, before sharing knowledge and expertise with RAs for consideration, ECCC experts must first obtain approval from ECCC's EA Program. In considering the degree to which ECCC knowledge and expertise is factored into EA decision making, it is therefore also important to consider the extent to which the contributions of ECCC experts are approved by the EA Program for incorporation into the consolidated submissions put forward by the program.

Data showing the extent to which ECCC expert contributions are reflected in final EA Program submissions to RAs is limited mostly to anecdotal information. Stakeholders who participated in both key informant and case study interviews generally agreed that advice from ECCC expert branches is well-reflected in the advice put forward by the program overall.

Incorporating Indigenous perspectives or concerns in a consistent manner into the consolidated advice put forward by the EA Program was flagged by several representatives and managers as an area for ongoing improvement. Indigenous consultation was identified as an important and necessary activity that ECCC participates in as part of the whole-of-government approach to

consultations with Indigenous peoples.[8] The EA Program's draft logic model clearly lists "Consultation with Indigenous peoples on areas within ECCC mandate" as a main program activity. The EA Program has put measures in place to share information and improve practices in this area, including establishing a federal Indigenous consultation network and identifying Indigenous consultation experts who are assigned to EA Program expert teams for specific projects. Although some inconsistencies in delivery across regions were identified, these efforts were highlighted as a main contribution of the program in this area. Improving the engagement and participation of Indigenous communities is a key consideration in the proposed changes to the EA regime tabled in Parliament on February 8, 2018. Once greater clarity on the whole-of-government approach is available, the EA Program will need to revisit its approach to considering Indigenous concerns in the advice it puts forward.

3.2 Treatment of environmental effects and mitigation relevant to ECCC's mandate in final EA documents

Expected Result	Expectations met	Further work required	Priority attention required	Unable to assess
3.2 Decision makers' final EA documents appropriately characterize environmental effects and mitigation relevant to ECCC mandate and use appropriate methodologies		•		

Findings: There is general agreement that final EA documents appropriately characterize environmental effects relevant to ECCC's mandate. With respect to mitigation of the impact of a project on the environment, ECCC experts have a role to play in reviewing mitigation measures proposed by project proponents. They can recommend particular mitigation measures to address significant adverse environmental impacts within ECCC's mandate. However, the evaluation identified uncertainty among ECCC experts regarding the department's position on mitigation. This includes the degree to which mitigation measures should be considered, as well as how to resolve issues where proposed measures may not align well with ECCC's legislative obligations. Although this is an important issue, both the issue and the ability to address it extend beyond the scope of the EA Program.

The EA Program's second direct outcome addresses the degree to which decision makers' final EA documents appropriately characterize both environmental effects and mitigation relevant to ECCC's mandate.

[8] The process is guided by INAC's Aboriginal Consultation and Accommodation – Updated Guidelines for Federal Officials to Fulfill the Legal Duty to Consult, March 2011.

As previously noted, evidence indicates that the majority of EA Program recommendations are incorporated by decision makers into final EA documents,[9] including final EA reports and decision statements. As well, EA Program submissions in support of EA processes adhere closely to ECCC's legislative and policy mandate.

Environmental effects

The majority of key informants from all stakeholder groups agreed that decision makers' final EA documents appropriately characterize the environmental effects relevant to ECCC's mandate. To support this view, key informants mentioned the following:

- ECCC is the only organization with a specific mandate related to certain areas of expertise. This includes surface water quality, migratory birds and terrestrial species at risk. As such, any advice included in the final EA documents from decision makers on those themes are directly relevant to ECCC's mandate.
- ECCC expert advice is of high quality and is largely valued by decision makers.

Use of appropriate methodologies

Evidence on the degree to which appropriate methodologies are used in final EA documents is limited. However, Departmental Performance Reports (DPRs) identify that ECCC has provided guidance on information collection methodologies and standards. For example, in 2015–16, the department drafted a methodology for conducting upstream GHG assessments. In addition, DPRs highlight that ECCC has worked with the CEA Agency on guidance for proponents to help focus the content of environmental impact statements. Further, stakeholders generally agreed that the work of ECCC experts is of high quality, but none commented directly on ECCC's contributions towards ensuring the use of appropriate methodologies in EA-related work.

Mitigation

Evaluation results highlight some uncertainty regarding the degree to which final EA documents appropriately characterize mitigation relevant to ECCC's mandate. Although all projects subject to EAs must be compliant with federal legislation, ECCC experts have a role to play in reviewing mitigation measures proposed by project proponents to mitigate any potential significant environmental effects, should they occur. In addition, ECCC experts may recommend particular mitigation measures, to address significant adverse environmental impacts within ECCC's mandate. However, key informants identified some complexities and uncertainty regarding the scope and nature of the role of ECCC experts in providing mitigation-related advice, identifying the following examples:

- Mitigation-related information provided by proponents to support EA processes is sometimes limited, particularly with provincial EA processes, because mitigation-related information is required for provincial regulatory phases, but not necessarily for EAs. There

[9] As part of the federal EA process under CEAA 2012, the Minister of Environment and Climate Change is required to provide project proponents with a Decision Statement. The Decision Statement must indicate the expected environmental impacts of proposed projects, as well as mitigation measures and follow-up requirements (including enforceable conditions) with which proponents must comply.

is some uncertainty about the extent of mitigation-related information that is required or should be expected of proponents at the EA stage.

- Mitigation-related requirements established under CEAA 2012 do not always align well with obligations under other legislation. For example, while RAs have an obligation under CEAA 2012 to look at a project's impacts on migratory birds, as well as mitigation measures to address those impacts, the Migratory Birds Convention Act (MBCA) contains a general prohibition against harming migratory birds.
- As mentioned in section 3.1, there is evidence of uncertainty about the EA Program's role in incorporating Indigenous perspectives or concerns into the consolidated advice put forward by the program and this uncertainty extends to mitigation-related advice.
- A few stakeholders questioned whether the EA Program's role in reviewing and recommending mitigation measures should be focused only on environmental effects (ECCC's current mandate), or whether consideration should also be given to social impacts. Currently, conventional mitigation measures typically focus on eliminating, reducing or controlling adverse environmental effects and compensating for damages, such as through replacement and restoration compensation.

Considering these complications and areas of uncertainty, some stakeholders indicated that ECCC experts could benefit from greater direction in terms of the program's role and priorities in providing mitigation-related advice.

Use of appropriate methodologies

Evidence on the degree to which appropriate methodologies are used in final EA documents is limited. However, DPRs identify that ECCC has provided guidance on information collection methodologies and standards. For example, in fiscal year 2015 to 2016, the department drafted a methodology for conducting upstream GHG assessments. In addition, DPRs highlight that ECCC has worked with the CEA Agency on guidance for proponents to help focus the content of environmental impact statements. Further, stakeholders generally agreed that the work of ECCC experts is of high quality, but none commented directly on ECCC's contributions towards ensuring the use of appropriate methodologies in EA-related work.

3.3 EA Program contribution to broader environmental assessment policies and frameworks

Expected Result	Expectations met	Further work required	Priority attention required	Unable to assess
3.3 Incorporation of ECCC recommendations into EA policies and frameworks	•			

Findings: In addition to developing departmental EA policies, ECCC's EA Program has been a key contributor in establishing and refining Government of Canada EA policies and frameworks.

The evaluation found evidence of ECCC contributions to the third direct outcome related to the development of EA policies and frameworks. This work includes the development of departmental EA objectives, policy papers and frameworks to guide EA Program staff and experts in their work, as well as contributions to initiatives affecting the broader Government of Canada EA regime.

Examples of EA-related objectives, policy papers and frameworks that ECCC developed or contributed to over the evaluation period include the following:

- department-wide objectives for water, air, greenhouse gases (GHG) and biodiversity issues, accompanied by sector-specific outcomes, to guide departmental interventions in EAs for major projects
- a reporting tool and policy guidance to support the department in implementing its legislative responsibilities under sections 66 to 72 of CEAA 2012, which pertain to projects on federal lands outside of Canada
- policy papers providing guidance on establishing conservation offsets as a mitigation measure for specific species

In addition, the Environmental Protection Operations Division (EPOD) is currently involved in work being done by ECCC experts to develop a policy or framework related to the role of ECCC experts in contributing to assessments of the significance of environmental effects identified in the EA process. The program does not directly present opinions on significance, but rather aims to provide RAs with sufficient information on the effects to make informed decisions about how significant or important are the effects.

ECCC was also involved in broader policy-related initiatives:

- contributing to updates to Disposal at Sea Regulations to ensure alignment with changes brought about by the enactment of CEAA 2012
- conducting research in support of EA priorities set by the Arctic Council
- providing policy leadership to the MPMOI, including advising on the assessment of project-related GHGs, cumulative environmental effects and the development of the interim principles for EAs announced in January 2016

Further, ECCC has been a major contributor to the comprehensive review of federal environmental and regulatory processes that was launched in June 2016, which included a review of federal EA processes.[10]

[10] The results of this review were announced on February 8, 2018.

3.4 Addressing adverse environmental effects in the environmental assessment approval process and follow-ups

Expected Result	Expectations met	Further work required	Priority attention required	Unable to assess
3.4 Significant residual adverse environmental effects within ECCC's mandate are addressed in the EA approval process, including any required follow-up		•		

Findings: ECCC's EA Program advice is often incorporated into EA decision making and approvals. ECCC has taken an active role in follow-up activities for specific projects. The EA Program would benefit from receiving greater clarity from RAs regarding its role and responsibilities in post-EA follow up. In addition, the need to improve ECCC's internal processes for communication, tracking and information management of follow-up activities was identified.

This intermediate outcome assesses the extent to which environmental effects for issues within ECCC's mandate are addressed in both the EA approval process and in follow-ups. It is important to note that both CEAA 2012 and the previous Act include provisions related to post-EA follow-up activities. However, most projects that are currently in a follow-up stage were initiated under the previous Act and are therefore subject to its follow-up provisions. Under CEAA 2012, follow-up conditions are included as part of the EA decision statement. After EA approvals, RAs are responsible for carrying out follow-up programs to "verify the accuracy of the EA predictions and the effectiveness of mitigation". In doing so, they may solicit the assistance of federal authorities, including ECCC.

Evidence indicates that ECCC has played and continues to play a role in follow-up initiatives related to particular EAs. Available performance data contained in DPRs shows that 100% of the EA follow-up requests made by the department in fiscal years 2013 to 2014 and 2014 to 2015 were performed as anticipated.[11] In addition, for the two projects examined in the case studies, ECCC is taking an active role in follow-up activities to fulfill Government of Canada commitments and contribute to management plans made in response to the project Decision Statements.

The evaluation found evidence, however, of some uncertainty in relation to ECCC's role in the EA follow-up process. While RAs can solicit the assistance of federal authorities to carry out follow-up programs, there is little operational guidance for how federal departments are to be engaged in post-EA follow-up. In practice, key informants felt that ECCC has been engaged in follow-up activities by RAs through one-off requests, with little consistency, and the obligations for ECCC's involvement have not always been clear. Follow-up activities for projects approved under CEAA 2012 are only just beginning., However, there appears to be a need for guidance in relation to ECCC's engagement with follow-up activities. Stakeholders suggested that this guidance could be

[11] Performance data related to this indicator was not available for other fiscal years.

provided in the form of process, policy or operational guidance documents that could be developed by the EA Program in collaboration and consultation with RAs. The program indicated that some preliminary work has been initiated in this area.

Documents and key informant interviews both identified room for improvement in clarifying ECCC's roles and responsibilities in relation to the monitoring and follow-up programs that occur after EA processes have been completed. In particular, a general need was identified for improvement in communication, tracking and information management related to EA decisions and follow-up measures, including the monitoring of long-term follow-up and adaptive management activities after EA processes have been completed.

- A few ECCC stakeholders expressed the view that they are not always kept informed about how proponents are following up on recommendations stemming from ECCC advice, or how performance is being monitored. These stakeholders expressed a desire for proponents and RAs to track the changes being made by proponents and for these changes to be relayed to ECCC regional groups. A few also mentioned a need for improved clarity in relation to what is being accomplished through an EA follow-up program, as opposed to what is being addressed in other post-EA regulatory mechanisms.

3.5 Increased efficiency of EA processes

Expected Result	Expectations met	Further work required	Priority attention required	Unable to assess
3.5 Increased effectiveness and efficiency of EA processes		•		

Findings: The EA Program has put in place a number of initiatives and mechanisms aimed at increasing the efficiency of EA processes, including memorandums of understanding (MOU) to clarify expectations, use of a "one-window approach" to engage experts and developing and sharing guidance and objectives. While these initiatives have been effective, the program continues to face challenges stemming from the lack of an overarching tool for project tracking, information management and data integration. This is a critical requirement, given the EA Program's geographically dispersed team, the large volumes of data and the high number of concurrent projects that operate within tight timelines. The opportunity was also identified to enhance the efficiency of the EA Program's internal approval process by streamlining, where appropriate, by clarifying roles and responsibilities and by improving coordination between headquarters and regions.

The evaluation found that efficiency is a priority for ECCC in its implementation of the EA Program. Almost all lines of evidence provided examples of initiatives, strategies and practices employed by the EA Program to ensure that:

- the program coordinates with other EA partners to avoid a duplication of efforts

- the work of the program is undertaken efficiently
- the program contributes to efficient EA processes

Examples of these efficiency-related initiatives and practices related to ECCC's EA work over the evaluation period include the following:

- ECCC is included in MOUs established with the Canadian Nuclear Safety commission (CNSC), the Northern Projects Management Office (NPMO) and the MPMOI. These MOUs are used in part to facilitate co-operation, minimize regulatory duplication and ensure an efficient use of government resources.
- The EA Program's "one-window approach" and the EA Coordinators are working effectively to systematically engage appropriate ECCC experts from across the country in EA work, coordinate their input and focus their work on significant impacts. EA Coordinators have also been instrumental in developing and implementing project-specific tracking tools that allow experts to sort and filter large volumes of information and documentation.
- ECCC defined departmental performance objectives for priority areas including air, GHGs, biodiversity and water, to provide an overarching framework to guide the EA Program and ensure that the department's efforts through the program align with its mandate and priorities.
- ECCC defined a subset of environmental objectives linked to specific sectors (such as mining), intended to assist practitioners in further defining the scope of an EA review.
- ECCC worked with the CEA Agency to streamline the timing and content of guidance to proponents, to help focus the content of their environmental impact statement.
- Case studies and key informant interviews both identified the EA Program's practice of conducting consultations with the public and Indigenous groups early in the EA process as an important efficiency initiative.
- In 2014, the EA Program piloted Lean process modernization. A workshop produced 19 recommendations for streamlining the EA Program and focusing the department's EA review efforts. Key informants mentioned the Lean exercise's role in identifying inefficiencies in the process for obtaining approval for EA Program contributions, developing a coordination charter to bring common understanding of the relationship between EA Coordinators and experts and bringing together branch coordinators through a workshop to promote a consistent approach across the program. However, some key informants described the Lean exercise as a missed opportunity, feeling that work in this area had not advanced in recent years.

Internal approval processes

Evaluation results also revealed potential efficiency-related issues with the EA Program's internal process for approving content provided by ECCC experts for inclusion in departmental EA Program submissions. The program's approval process serves the important function of ensuring that

scientific advice from various sources within ECCC is consistent, of high quality, focused and relevant, which can contribute to overall efficiency. However, there was a relatively widespread perception among stakeholders consulted for the evaluation that the approval process is inefficient. Some described the process as "management-heavy" and "redundant" because expert contributions must be approved at a senior management level before being submitted to the EA Program. The program's advice, in turn, often must go through approval processes at both the regional and national levels and, in some instances at the ADM level. According to these stakeholders, the multiple levels of approval can shorten timelines for experts to do their work and perform quality assurance.

A few program representatives explained that the role of EA Program headquarters in approving EA Program content is to ensure national consistency, which is time consuming. It seems that current legislated timelines do not allow sufficient time for both experts and EA Program headquarters to fulfill their responsibilities satisfactorily. Legislated timelines are an external factor beyond the scope of this evaluation and exist to ensure that EAs are completed in a timely manner. However, the perception of inefficiency points to a communication issue. In particular, stakeholders identified a lack of clarity with regard to:

- the level of approvals needed for given contributions of expertise
- the roles of regional directors and other levels of management approving EA Program submissions
- the division of approval responsibilities between EA Program and regional EA Program groups

Both key informants and case study participants called for greater communication and coordination between EA Program groups in headquarters and in the regions, to ensure that:

- experts have sufficient time for their contributions
- regions have a better understanding of approval requirements and the direction that the program needs to take with the advice

Information management and data integration

The enactment of CEAA 2012 resulted in the application of EAs to larger-scale, more complex projects, new legislated timelines and enforceable conditions. [12] In response to these changes, ECCC management identified a high priority need for a more formalized "portfolio management" approach to the department's EA work. Further, EA Program staff work in offices located across the country and manage large volumes of information and documents for a high number of concurrent projects that are subject to timelines and approvals. The EA Program has identified the need for national data integration tools to enhance efficiency and access to project information. The system was required to support project tracking, improved information sharing and national consistency and reporting on performance.

[12] For a brief description of the changes to the EA process made by CEAA 2012, consult Appendix A.

Over the evaluation period, the EA Program attempted to implement tools that would respond to its need for robust data integration. For example:

- A Quality Management System (QMS) was initiated to provide a roadmap of the main steps of an EA and the associated level of approval, with embedded guidance on how each step should be completed. The main goals of the QMS were to provide greater consistency and predictability in the EA process and establish the points for management intervention and associated accountabilities, to enable a more effective use of experts and a more efficient content approval process.
- The EA Program explored different ways to implement the QMS using in-house data integration tools. In 2015, the program developed TERRA, a customized data integration tool for the program, with the Corporate Services and Finance Branch (CSFB), to store and report on EA project data, provide a record of regulatory decisions and evidence, track legislated timelines and allow staff across the country to collaborate on EA files. Although program documentation and interviews establish that there was a clear need for a data integration tool to provide a central authoritative source for program information and data, CSFB made a decision in 2016 to discontinue its support and maintenance of TERRA. This was based on the fact that technology being used to support the system would not be compatible with ECCC's migration to Shared Services Canada. As a result, the system was abandoned prior to becoming operational.

In the absence of an overarching data integration tool, the EA Program currently uses a collection of tools and processes for project-specific activity and deliverable-tracking. Documents identify a National Capital Region task tracking sheet, an EA project master list and a list of ECCC experts who can be engaged in EAs.

3.6 Reduced environmental impact from projects subject to EA

Expected Result	Expectations met	Further work required	Priority attention required	Unable to assess
3.6 Reduced environmental impact from projects subject to EA				•

Findings: Direct evidence linking program objectives to long-term outcomes is limited. There is therefore insufficient data to fully assess the degree to which ECCC's EA Program has resulted in a reduced environmental impact from projects subject to an EA. However, there is some evidence of a reduced impact on the environment associated with EA Program activities over the evaluation period, including greater commitment to mitigation by proponents.

Given that final outcomes are often long-term and further removed from the direct effects of program activities, finding direct evidence pertaining to the achievement of final outcomes is a

challenge for any evaluation. Interview and case study participants pointed out challenges in measuring progress in relation to the EA Program's final expected outcome, noting in particular the lack of baseline data and difficulty in quantifying the extent to which EA processes result in reductions to potential environmental impacts. Key informants also pointed out that, considering that follow-up activities related to projects approved under CEAA 2012 are just beginning; it is too soon to assess the long-term results of EA Program contributions to these projects.

While assessing the achievement of long-term outcomes is often challenging, it is reasonable to infer that activities associated with the EA Program have contributed, at least to some extent, to a reduced environmental impact from projects subject to an EA. In theory, EA Program contributions to Decision Statement conditions, and the management strategies developed in response to those conditions, will reduce the expected impact of projects approved through the EA process, including those for which significant adverse environmental impacts were found. File review results show that all projects for which the EA Program contributed to the EA process over the evaluation period were ultimately approved with conditions.[13]

Still, the majority of key informants reported that the EA Program has made progress in reducing environmental impacts from projects subject to an EA. Key informants highlighted that the EA Program's scientific and technical expertise contribute to the development of more comprehensive management plans and that ECCC's interactions with proponents (such as through bilateral meetings to discuss expectations or technical issues) have led proponents to make greater commitments to mitigation. Program representatives mentioned that efforts are being made to ensure that conditions related to the development of management plans also outline a commitment to implement those plans.

[13] This includes two projects (the Pacific Northwest LNG and LNG Canada Export Terminal) for which the EA process found significant adverse environmental effects. Considering the finding of significant adverse environmental effects, these two projects were referred to the Governor-in-Council for the decision, who concluded that the projects were justified, in light of their expected benefits.

4. Findings: design and delivery

This section summarizes the assessment of the design and delivery of the EA Program, with an emphasis on the efficiency of program delivery. It focuses on the extent to which the program has been delivered as intended and considers aspects of program governance, performance measurement and resources. This section also highlights suggestions for program improvement that emerged during the evaluation.

Design and delivery criteria	Expectations met	Further work required	Priority attention required	Unable to assess
To what extent is the program's design and delivery efficient?				
4.1 Is the program designed and delivered as intended?	•			
4.2 Is the governance structure clear and well-understood? Does the governance structure support integrated planning and priority-setting?		•		
4.3 Are performance data being collected and reported? If so, is this information being used to inform senior management and decision makers?		•		
4.4 Are program resources commensurate with expected results?		•		

4.1 Design and delivery

Findings: Evaluation results indicate that the design of the EA Program is generally appropriate for achieving expected results and that the program has been implemented as intended. Case studies highlighted the EA Program's three-tiered expert support model as a design element that is working well.

In general, evidence indicates that the EA Program is designed in an appropriate manner for achieving its expected results. The ultimate objective of the EA Program is to reduce the environmental impact from projects subject to an EA. The program pursues this objective by contributing technical and scientific expertise to inform EA decision making and follow-up measures. As demonstrated in section 3.1, ECCC contributions of scientific and technical expertise relative to its mandate are valued by decision makers and often incorporated into EA decisions and follow-up measures. As discussed in section 3.6, while it is difficult to assess the long-term impacts of the EA Program's contributions to EAs. However, there are indications of some reduced environmental impacts stemming from program activities.

The evaluation also found evidence that the EA Program has been implemented as intended. Both case studies demonstrated that while opportunities were identified to clarify responsibilities between HQ and the regions, overall, the general division of roles and responsibilities between EA

Program regional offices and headquarters is appropriate and works as intended. Regional offices work with expert groups to review project documents and prepare submissions. This work is supported by EA Program headquarters, which provides additional guidance in relation to the department's issues and concerns. Both case studies also provided evidence that the EA Program's three-tiered expert support model is being implemented and is working well.

Evidence indicates that EA Program contributions are aligned with ECCC's legislated mandate and are for the most part aligned with advice provided by other federal authorities. However, the evaluation identified areas where there may be more than one federal authority with the mandate to provide advice, such as with ECCC's and DFO's respective roles in relation to pollution prevention provisions under the Fisheries Act and shared expertise of ECCC and NRCan in the area of hydrology. This expertise may or may not be in alignment. Program stakeholders indicated that the overlap in the provision of expertise from federal authorities can be beneficial, since it provides multiple perspectives on the same issue.

4.2 Governance and priority setting

Findings: Governance of the EA Program is, for the most part, functioning as intended. The roles and responsibilities of those supplying advice to EAs within the EA Program are clear and well-understood. The committees with a role in governance have facilitated information sharing and communication on a variety of topics. The division of roles, responsibilities between the EA Program and external partners and stakeholders involved in EAs are also generally clear. There may be some opportunity for improved clarity, however, between provincial and federal authorities, including ECCC, when both federal and provincial EA processes are triggered.

Governance for the program includes the following:

- The Deputy Minister's Coordinating Committee on Environmental Assessment (DMCCEA)
- The biweekly ADM EA meeting
- The Directors General Environmental Assessment Committee (DGEAC)
- The EA Board of Directors
- The EA Managers Committee (EAMC)

Each of these mechanisms plays a role in providing ECCC with strategic direction, oversight, coordination and support as it carries out its EA work through the EA Program. Documents such as agendas, minutes and action items provided evidence that these mechanisms have, in the past:

- discussed a wide variety of EA-related topics and issues
- kept internal partners informed of EA projects and EA-related developments
- aided internal planning and decision making related to the department's EA responsibilities

Most program managers agreed that the EAMC and the EA Board of Directors provide an opportunity for information sharing and coordination. Some mentioned that these committees have not been fulfilling their intended broader functions related to planning, priority setting or decision making.

Roles and responsibilities within ECCC

Evaluation results indicate that, in general, those responsible for carrying out EAs and those supporting EA processes through the provision of scientific and technical expertise understand their roles. The roles and responsibilities are generally defined and understood within the EA Program at the working or practitioner level. The majority of key informants and case study participants agreed that this is the case. This clarity was attributed to the following factors:

- Legislation and regulations, which set out the roles of those providing scientific expertise
- Regular communications between the EA Program and expert groups
- Regular regional EA Program meetings held to share information at the working level on specific EAs
- The work of regional EA coordinators in managing expert review teams for projects and sharing critical information among project team members

As discussed in section 3.5, however, the evaluation identified a need for improved clarity in the respective roles and responsibilities of EA Program headquarters and regional EA Program groups in obtaining approval for EA Program expert content and submissions.

During the evaluation period, the program underwent a "subtle shift". It moved away from an EA model in which regional offices held relatively broad autonomy in developing departmental responses, to a model in which topics, issues and statements required validation from senior staff in the National Capital Region. According to key informants, this shift sought to generate greater involvement from headquarters and was aligned with the federal Responsible Resource Development Initiative.[14] This change did not appear to be well communicated to or well understood by the regions.

Roles and responsibilities between the EA Program and external EA partners and stakeholders

Evaluation results indicate that for the most part, the division of roles, responsibilities and accountabilities among the EA Program and external partners and stakeholders involved in EAs are also clear.

Results indicate a potential need to clarify the roles and responsibilities of provincial and federal authorities, including ECCC, when a project triggers both federal and provincial EA processes. The

[14] The federal government's Responsible Resource Development Initiative was part of the 2012 Economic Action Plan. It emphasized job creation and growth, while strengthening environmental protection. The initiative had four key outcomes: making the review process more predictable and timely; reducing duplication of project reviews; strengthening environmental protection; and enhancing consultations with Indigenous peoples. Its ultimate goal was to have "one project, one review" within a clearly-defined time period.

objective is to ensure that timeline and information requirements for various approval processes are coordinated. Earlier and more ongoing communications between federal authorities and provinces could also help to ensure that federal mandates are reflected in post-EA provincial regulations affecting the project.

4.3 Performance data and measurement

Findings: The EA Program currently has no formal performance measurement strategy. Performance information is lacking for many of the program's expected results. Work is underway to develop a performance measurement strategy as part of the implementation of the Treasury Board (TB) Policy on Results.

During the conduct of this evaluation, the EA Program did not have an approved performance measurement strategy. For the purpose of the evaluation, the draft logic model and outcomes created as part of the implementation of the TB Policy on Results were used to assess performance. While DPRs over the evaluation period include performance results for the Ecosystem and Environmental Assessments Sub-program (1.3.2), only one indicator (Percentage of Environment and Climate Change Canada recommendations that are fully or partially incorporated into Decision Statements) was reported on consistently through DPRs over the evaluation period.[15]

ECCC has contributed annually to consolidated reports to Parliament by federal authorities with obligations under CEAA 2012 section 71. These reports document how ECCC has met its section 67 obligations, but do not include specific, measurable performance objectives, targets or indicators.

Almost all key informants representing the EA Program agreed that project tracking and performance measurement for the EA Program are lacking. Key informants called for better performance tracking and more sophisticated information management systems for the program. As discussed in section 3.5, the program previously identified a high priority need for project tracking and information management tools, which would also provide valuable performance measurement data. Development work initiated with CSFB on such a tool was discontinued in 2016, and no replacement has as yet been identified.

As part of the ongoing implementation of the TB Policy on Results, a performance measurement strategy for the EA Program is being finalized. As a result, no recommendation has been made regarding the need for a performance measurement strategy.

4.4 Program resources and capacity

Findings: The EA Program has faced resource or capacity-related challenges, in particular as pertains to meeting tight legislated timelines and timely access to scientific expertise. Additionally, capacity requirements may change in light of reforms anticipated from the newly proposed changes to the current EA regime.

[15] This is also the only performance indicator reported on by ECCC, as part of the MPMOI.

The evaluation provided evidence that the EA Program is experiencing some resource or capacity-related challenges. Multiple lines of evidence identified issues related to the ability of the EA Program to access needed expertise. Documents, stakeholder interviews and the case studies identified that scientific experts often face other work pressures and cannot always prioritize EA work over other responsibilities. This may, in part, be a funding issue, as well as a prioritization issue, since EA Program resources do not cover costs for the provision of expertise. There is no cost recovery mechanism in place specifically to support the department's expert contributions to EA. As a result, when financial resources are limited, experts are less able to focus on EA-related work.

Multiple lines of evidence also indicate that although the legislated timelines under CEAA 2012 are designed to ensure that EAs are completed in a timely manner, they create challenges for the EA Program. The file review found that the EA Program met established timelines for review and submission of comments in the majority of cases. While the file review found that the EA Program was late in submitting comments on four internal deadlines during the Environmental Impact Statement (EIS) review of three CEA Agency projects, there is no evidence to suggest that these late submissions prevented ECCC expertise from being considered. Multiple lines of evidence do, however, indicate that the tight legislated timelines have had an impact on the content and quality of EA Program contributions. In particular, documents and stakeholder interviews noted that current EA timelines are not always sufficient or flexible enough to allow for ECCC experts to provide a comprehensive review of information provided by proponents, to engage in meaningful consultation with the public and Indigenous groups or to provide thorough, comprehensive scientific expertise. In addition to legislated time constraints affecting the program as a whole, the lengthy internal approval process discussed in section 3.5, creates additional time pressures for ECCC experts.

The above-mentioned timeline and access to expertise challenges featured prominently in the evaluation results. There is some indication, however, that these issues are not experienced equally on all files. For example, the recommendations from four major projects of the 15 projects in the file review sample (Tazi Twe, Whabouchi, Pacific NW LNG and TransMountain Expansion) made up over half of all EA Program recommendations (52%) over the evaluation period.[16] Some stakeholders and the majority of program representatives consulted felt that the EA Program generally has sufficient resources to fulfill its mandate as a coordinating body. However, the EA Program is not always well prepared for the volume of work required for EAs of large or complex projects, which may require more resources than the typical EAs to which the program contributes.

The demands on the EA Program's capacity may be further impacted by the proposed changes to the current EA regime, which were tabled in Parliament in February 2018. Details of how these changes will impact the EA Program are not yet known; however, the proposed new system highlights decision making guided by science, evidence and Indigenous traditional knowledge, a new mandatory early planning and engagement phase and calls for greater efforts in areas such as Indigenous consultation, regional and strategic assessments and post-assessment follow-up. As a result, an expanded role for the EA Program in the EA process (or impact assessment) seems likely.

[16] The NEB-led project Pacific Northwest LNG had the highest number of EA Program recommendations, with 35 in total.

5. Conclusions, recommendations and management response

5.1 Conclusions

Relevance

Overall, ECCC's involvement in the EA process through the EA Program remains relevant. Evaluation results provide evidence of an ongoing need for EAs in general, as well as the specific objectives of the EA Program. Through the EA Program, ECCC experts contribute expertise on the environmental effects of development initiatives to support evidence-based decision making. This is essential to ensure that the negative environmental impacts associated with designated projects are avoided or minimized.

The program aligns with current federal priorities and is consistent with the federal roles and responsibilities set out in legislation and the mandate of the Minister of Environment.

Performance – effectiveness

Available evidence indicates that the EA Program is making progress towards fulfilling its expected outcomes. Specifically, the evaluation found the following:

- Advice from ECCC expert branches is generally well-reflected in the consolidated advice put forward by the program to authorities responsible for conducting EAs.
- ECCC specialist and expert information or knowledge is reflected, for the most part, in decision makers' recommendations, conclusions and final EA documents.
- EA Program submissions are closely tied to ECCC's legislative and policy mandate and, as such, appropriately characterize environmental effects relevant to ECCC's mandate.
- The EA Program made a number of contributions to the development of EA policies and frameworks during the evaluation period.

The EA Program's approval process serves the important function of ensuring that scientific advice from various sources within ECCC is consistent, of high quality, focused and relevant. However, there was a relatively widespread perception among stakeholders consulted for the evaluation that the internal approvals process was "heavy" and negatively impacted the timelines available for experts to do their work and perform quality assurance. Additionally, the need to more clearly communicate the levels of approvals needed and the role of regional directors was identified.

The EA Program has put in place a number of initiatives and mechanisms aimed at increasing the efficiency of EA processes, including memorandums of understanding to clarify expectations, use of an "one-window approach" to engage experts and the development and sharing of guidance and objectives. While these initiatives have been effective, the program continues to face challenges stemming from the lack of an overarching tool for project tracking, information management and data integration. This is a critical requirement, given the program's geographically dispersed team, the large volumes of data and the high number of concurrent projects that operate within tight timelines.

Design and delivery

Evaluation results indicate that the design of the EA Program is generally appropriate for achieving expected results and that the program has been implemented as intended.

Design elements such as the "one-window approach" and the EA Program's three-tiered expert support model are working well and are considered best practices.

The EA Program has faced resource or capacity-related challenges, particularly in meeting tight legislated timelines and ensuring timely access to scientific expertise. Additionally, capacity requirements may change in light of reforms anticipated from newly proposed changes to the current EA regime, which were tabled in Parliament in February 2018.

The evaluation found that governance of the EA Program is, for the most part, functioning as intended. The roles and responsibilities of those supplying advice to EAs within the EA Program are clear and well understood. The various committees have facilitated information sharing and communication on a variety of topics, although some stakeholders felt they would benefit from a greater emphasis on planning, priority setting and decision making.

The EA Program currently has no formal performance measurement strategy, and performance information is lacking for many of the program's expected results. Work is underway to develop a performance measurement strategy as part of the implementation of the Treasury Board (TB) Policy on Results.

5.2 Recommendations and management response

The following recommendations are addressed to the Assistant Deputy Minister of ECCC's Environmental Protection Branch, as the senior departmental official responsible for management of the EA Program.

Recommendation 1

Recommendation 1: develop and implement improved project tracking and information management practices.
Environmental Assessment Program (EA Program) staff work in offices located across the country. They manage large volumes of information and documents for numerous concurrent projects that are subject to tight timelines and approvals. However, no central data integration system is currently in place to house project information, allow collaboration across the EA Program, ensure data integrity and quality control, identify the levels of approvals needed and track project status. The need for such a system to enhance efficiency is well established through evaluation evidence and the EA Program's own internal assessments. Evidence also suggests that the EA Program could benefit from improving its internal processes to track and respond to follow-up requests from Responsible Authorities. The EA Program had previously identified this need and developed such a system in collaboration with the Corporate Services and Finance Branch (CSFB). However, support for this tool was discontinued and the project was abandoned in 2016, prior to being implemented.

At this time, no replacement tool has been identified to meet EA Program's needs in this area.
Statement of agreement or disagreement
The Assistant Deputy Minister of the Environmental Protection Branch agrees with the recommendation.
Management response
The EA Program will review available project tracking tools. Based on this review, the EA Program will implement a tool appropriate to meet the needs of the program. From an information management perspective, the EA Program will continue to explore efficiencies and solutions to better manage information, including the development of a file structure and national nomenclature.

Deliverable	Timeline	Responsible party
Implement a project tracking tool and information management system	December 2018	Executive Director, Environmental Assessment Division

Recommendation 2

Recommendation 2: review and identify opportunities to clarify and streamline, where appropriate, internal approvals of expert advice provided through the Environmental Assessment Program (EA Program).

The evaluation found that the EA Program's process to review and approve expert contributions prior to submitting them to Responsible Authorities was overly complex and, in some cases, unclear. The EA Program must conduct its activities within tight legislated timelines. The approval process functions to improve the overall quality and national consistency of EA Program submissions. There is a concern, however, that the current internal approval structure restricts the time available for experts to analyze information and produce advice, thereby potentially affecting the quality of their input. As well, the evaluation identified a need to communicate more clearly the levels of approvals needed for different areas or types of expertise, the role of regional directors and other levels of management in approving EA Program submissions and the division of approval responsibilities within the EA Program itself.

Statement of agreement or disagreement

The Assistant Deputy Minister of the Environmental Protection Branch agrees with the recommendation.

Management response

The EA Program will review the roles and responsibilities and service standards at each stage of the EA process, and look for opportunities for improvement. Based on this review, the EA program will implement a streamlined internal approvals system, while ensuring accountabilities are met.

As a first step, the EA Program will develop and finalize a guidance document on the preparation of information requests.

Deliverables	Timeline	Responsible party
Develop and finalize a guidance document on the preparation of information requests.	June 2018	Executive Director, Environmental Assessment Division
Implement a streamlined internal approvals system	October 2018	Executive Director, Environmental Assessment Division

Appendix A: program description

Overview

The main activity area of the Environmental Assessment Program (EA Program) is Environment and Climate Change Canada's (ECCC) participation in environmental assessments (EA) of designated projects under the Canadian Environmental Assessment Act, 2012 (CEAA 2012) and additional federal EA legislation in the North.[17] As well, the EA Program conducts environmental reviews of projects on federal lands and for projects occurring outside Canada, pursuant to sections 67 to 72 of CEAA 2012 and contributes scientific expertise to other federal department in their efforts to meet section 67 responsibilities. Through the EA Program, ECCC contributes scientific expertise to the EA process, thus providing a platform for ECCC to contribute to the health of ecosystems. The areas of expertise covered by ECCC's mandate include:

- Conservation and protection of migratory birds and their habitat
- Prevention of releases or deposits of potentially deleterious substances into waters frequented by fish
- Management of toxic substances
- Environmental quality objectives, guidelines and codes of practice
- Pollution prevention
- Preservation of species at risk as designated by COSEWIC (Committee on the Status of Endangered Wildlife in Canada)
- Management of National Wildlife Areas
- Conservation of Canada's wetlands
- Conservation of Canada's biodiversity
- Promotion of sustainable development
- Trans-boundary water management
- Conservation and protection of the Great Lakes Basin ecosystem
- Protection of air quality from contaminants
- Implications of climate change
- Information on meteorology (including severe weather events)
- Collection of environmental data

Legislative context

Canadian Environmental Assessment Act 2012

The Canadian Environmental Assessment Act (CEAA), which was brought into force in 1995, is the governing piece of legislation for the federal EA process in Canada's provinces. The Act was

[17] CEAA 2012 is the EA legislation that applies to Canada's provinces. In the North, four other acts and agreements guide the EA process: Yukon Environmental and Socio-economic Assessment Act, Mackenzie Valley Resource Management Act, Nunavut Land Claims Agreement and the Nunavut Planning and Projects Assessment Act; and Inuvialuit Final Agreement.

amended in 2010 and in 2012, to reduce duplication, improve timelines, decrease regulatory burden, improve environmental protection and increase Indigenous consultation. When CEAA, 2012 came into force, most EAs initiated under the former act continued under that legislation with the exception of EAs conducted by review panels which were transitioned to CEAA, 2012.

The purposes of CEAA 2012 are:

- to protect the components of the environment that are within the legislative authority of Parliament from significant adverse environmental effects caused by a designated project
- to ensure that designated projects that require the exercise of a power or performance of a duty or function by a federal authority under any Act of Parliament other than this Act to be carried out, are considered in a careful and precautionary manner to avoid significant adverse environmental effects
- to promote co-operation and coordinated action between federal and provincial governments with respect to environmental assessments
- to promote communication and co-operation with aboriginal peoples with respect to environmental assessments
- to ensure that opportunities are provided for meaningful public participation during an environmental assessment
- to ensure that an environmental assessment is completed in a timely manner
- to ensure that projects, as defined in section 66, that are to be carried out on federal lands, or those that are outside Canada and that are to be carried out or financially supported by a federal authority, are considered in a careful and precautionary manner to avoid significant adverse environmental effects
- to encourage federal authorities to take actions that promote sustainable development in order to achieve or maintain a healthy environment and a healthy economy
- to encourage the study of the cumulative effects of physical activities in a region and the consideration of those study results in environmental assessments

Under CEAA 2012, the Responsible Authorities (RA), which include the Canadian Nuclear Safety Commission (CNSC), the National Energy Board (NEB) and the Canadian Environmental Assessment Agency (CEAA), ensure that an EA is conducted before project approval. The EA process is informed by knowledge and advice provided by Federal Authorities (FA),[18] including ECCC. ECCC has statutory obligations to provide expert advice to RAs, within the legislated timelines and, after project approval, ECCC may have a regulatory role to permit certain activities

[18] A Federal Authority is (a) a Minister of the Crown right of Canada; (b) an agency of the Government of Canada or a parent Crown corporation, as defined in subsection 83(1) of the Financial Administration Act (FAA), or any other body established by or under an Act of Parliament that is ultimately accountable through a Minister of the Crown in right of Canada to Parliament for the conduct of its affairs; (c) any department or departmental corporation that is set out in Schedule I or II to the Financial Administration Act; and (d) any other body that is set out in FAA Schedule 1. Under CEAA 2012, ECCC is considered a Federal Authority. Upon request, Federal Authorities are required to provide expertise, knowledge and information in support of EAs to one of three Responsible Authorities (the Canadian Environmental Assessment Agency, the Canadian Nuclear Safety Commission and the National Energy Board). Similarly, under territorial legislation and land claims agreements, ECCC is required to provide expertise as requested to impact review or co-management boards.

(for example, Disposal at Sea permitting under the Canadian Environmental Protection Act, 1999), as well as the EA follow-up program. ECCC also cooperatively engages with provincial authorities in substituted EAs.[19,20]

Northern legislation and land claims agreements

In the three northern territories, ECCC also provides input into EA and regulatory processes under territorial legislation and land claim agreements, which focus on a much broader range of projects. Specifically, EA work is governed by:

- the Mackenzie Valley Resource Management Act in the Northwest Territories, which is administered by the Mackenzie Valley Environmental Impact Review Board and various land use planning and land and water boards[21]
- the Yukon Environmental and Socio-economic Assessment Act in the Yukon, which is administered by the Yukon Environmental Socio-economic Assessment Board
- the Nunavut Land Claims Agreement in Nunavut, where three co-management boards, namely the Nunavut Planning Commission , the Nunavut Impact Review Board and the Nunavut Water Board, are responsible for administrating project regulatory processes in the territory
- In the Inuvialuit Settlement Region in the Northwest Territories, the environmental assessment process is governed by Section 11 of the Inuvialuit Final Agreement (IFA), as well as by CEAA 2012.

Roles and responsibilities

Overall accountability for EA activities in ECCC rests with the ADM, Environmental Protection Branch and the Director General of the Environmental Protection Operations Directorate (EPOD) who is the lead for EA Program activities. EPOD is responsible for ensuring the consistency of the EA Program's corporate approaches and national policies and procedures. Regional EPOD groups are responsible for program delivery.

EA coordinators in each region manage the participation of experts and specialists from other branches at ECCC during individual projects. Expertise for EA reviews comes from the Environmental Protection Branch including EPOD and sector groups (for example, mining, energy and transport, oil and gas), the Canadian Wildlife Service, the Science and Technology Branch and the Meteorological Service of Canada.

[19] For substituted EAs, a provincial process is used to meet requirements under CEAA and the federal Minister is required to make a final decision. Under an equivalency EA, a provincial EA process completely replaces federal EA processes and no decision is required by the federal Minister.
[20] Under northern legislation, ECCC plays a similar role in providing expertise to northern resource management and impact review boards. ECCC can also act as a regulator for issuing permits or licenses.
[21] These include the Gwich'in Land and Water Board, the Sahtu Land and Water Board and the Wek'eezhii Land and Water Board.

Program activities

Activities undertaken as part of the EA Program focus on:

- participating in federal environmental assessments, including those in the North
- contributing scientific expertise in territorial and provincial environmental assessments, which collectively aim to provide a platform for ECCC to contribute to the health of ecosystems

ECCC has statutory responsibilities under CEAA 2012 to provide specialist or expert information and knowledge related to its mandate of environmental protection and conservation. The same responsibilities apply with respect to northern EA requirements under the aforementioned legislation (such as land claim agreements). The department also has responsibilities, pursuant to sections 67–72 of CEAA 2012, to ensure that its physical activities carried out on federal lands or outside Canada do not result in significant adverse environmental effects.

The three broad phases in the EA and regulatory review process under CEAA 2012 are presented in Table 2.

Table 2: phases of federal environmental assessment

Phase	Environment and Climate Change Canada Actions
Pre-EA Phase	• Review project description and provincial or agency EA Terms of Reference • Provide advice to responsible authority as to whether the proponent has appropriately characterized the adverse environmental effects of a project so they may begin the EA review.
EA Phase	• Provide advice and expertise within the areas of ECCC's mandate to the responsible authorities, including a review of EA documentation (for example, environmental impact statements[22] and technical supporting documents) • Participate in meetings with key stakeholders • Review reports • Review draft EA decision and conditions
	For review panels and boards
	• Provide advice and expertise within the areas of ECCC's mandate to the Review Panel or Boards, which include reviewing Panel Agreements and

[22] The environmental impact statements outline information proponents must include in their identification and assessment of potential environmental effects of the project (CEAA). The Basics of Federal Environmental Assessment.

Phase	Environment and Climate Change Canada Actions
	Terms of Reference and EA documentation to identify missing information and providing technical comments, participating at public hearings and responding to undertakings from the panel • Once the panel review or board hearing has ended, ECCC may also participate in the approval process or the preparation of the Government Response, as appropriate
Post-EA Phase	• If requested by regulators, review proponent applications for permit or licence and follow approvals process specific to regulations and provide information to proponents who contact ECCC • If requested by a responsible authority, provide advice in relation to the design and implementation of the EA follow-up program.

Major Projects Management Office Initiative

ECCC also participates in the work of the Major Projects Management Office (MPMO), which was created in 2007 to ensure a timely and predictable process for EAs and regulatory reviews of major natural resource projects. The MPMO is housed at NRCan. It provides funding to ECCC and other federal departments to support their participation in major resource projects. The MPMO Initiative is not included in the scope of the current evaluation.

Northern Projects Management Office

The Northern Projects Management Office (NPMO) was established in September 2009, as part of the Northern Regulatory Improvement Initiative. As a core program within the Canadian Northern Economic Development Agency (CanNor), it supports economic development in the three territories.

The Memorandum of Understanding Defining Terms and Scope of Cooperation between Federal Departments, Agencies and the Northern Projects Management Office for Coordination of Northern Projects was signed between CanNor and eight other departments and agencies.[23] The Memorandum of Understanding sets a framework for the NPMO's work with federal departments, while outlining the tools that CanNor uses to support the management of northern major projects. It commits the parties to working cooperatively to carry out activities and obligations during EAs, regulatory permitting and other decision-making processes in the three territories.

Governance

The EA Program contributes to the ECCC's strategic outcome: "Canada's natural environment is conserved and restored for present and future generations". According to the 2016-17 Program

[23] These departments and agencies include ECCC, NRCan, Department of Fisheries and Oceans, Indigenous and Northern Affairs Canada, Transport Canada, the Canadian Environmental Assessment Agency, the Canadian Nuclear Safety commission and the National Energy Board.

Alignment Architecture, the EA Program is located under program activity 1.3 Sustainable Ecosystems.

The following committees and governance mechanisms play a role in EA Program governance.

- **The Deputy Minister's Coordinating Committee on Environmental Assessment (DMCCEA):** The mandate of the DMCCEA is to ensure that ECCC is bringing a strategic and department-wide perspective to EA projects. The role of the committee is to make sure that a comprehensive approach is taken to departmental engagement in EA and that departmental views are consolidated to support decision making. The DMCCEA includes the Deputy Minister and Associate Deputy Minister; the Assistant Deputy Ministers (ADM) of EPB, CWS, STB, MSC, Strategic Policy Branch and CSFB; the Director General (DG), Communications; the DG, EPOD; the Executive Director, EAD; and the Head of ECCC Legal Services.
- **ADM bi-lateral meetings** occur with EPOD-EA and similarly for GHG-EA: The key objective of these meeting is to engage and debrief the ADM on matters that require decisions regarding strategic and policy. Decisions made in these discussion forums are implemented by EA coordinators across the country.
- **The Directors General Environmental Assessment Committee (DGEAC):** The DGEAC is an inter-branch committee whose main role is to share information, provide advice and serve as a governance forum, to guide ECCC in meeting its obligations under CEAA 2012. Its main objectives are to provide direction on emerging, strategic and policy issues pertaining to EAs and on ECCC's review of EA projects. The DGEAC includes directors general and executive directors from the EPB, STB, CWS, MSC and SPB.
- **EA Board of Directors (BoD):** The key objectives of the BoD are to provide oversight of EAs, to ensure that roles and responsibilities are clearly defined, the integrity of program design (for example, structure and capacity) is maintained and performance is measured. The BoD also provides leadership and direction on management issues and planning issues, including establishing priorities, as well as on strategic and policy issues pertaining to EAs. As required, it engages other parts of ECCC to ensure that EA projects are adequately supported. Finally, it provides strategic direction on key EA projects to ensure consistency across the country. The BoD includes the DG, EPOD, the Executive Director, EAD and all regional directors.
- **The EA Managers Committee (EAMC):** The EAMC's goal is to achieve more timely, consistent and effective EAs at the federal level, in accordance with direction received from ministers and deputy ministers. The main objective of the committee is to strengthen communication and working relationships among senior-level representatives of the key federal departments and agencies involved in environmental assessment, to ensure coordination between EA headquarters in the National Capital Region and the regional offices across the country. EAMC's work involves establishing common strategies and consistent approaches, sharing best practices and seeking consolidated legal opinions on issues.

Interdepartmental governance and management

ECCC also participates in interdepartmental coordination for particular types of environmental assessments, such as those managed by the MPMO and the NPMO.

- **Major Projects Deputy Ministers' Committee:** The Major Projects Deputy Ministers' Committee serves as the governing body for the implementation of the MPMO Initiative. This Committee provides direction for the resolution of project and policy issues and oversees the application of the Cabinet Directive on Streamlining Regulation. The committee is chaired by the Deputy Minister of NRCan and comprises the deputy ministers from the federal regulatory departments, the president of the CEA Agency and the CNSC and the Chair of the NEB. To ensure effective communication with federal regulatory departments and agencies on key issues and to facilitate collaboration and co-operation, interdepartmental working groups have been established at the ADM, DG and working levels.

- **Northern projects:** The Northern Projects Management Office facilitates federal engagement in northern regulatory systems and offers a single point of entry for stakeholders interested in the EA review or regulatory permitting processes of projects. The NPMO uses the existing MPMO network of DMs, ADMs and DG-level committees and specifically mandated northern committees.

Partners and stakeholders

ECCC collaborates with other federal departments and agencies and the provinces and territories to conduct the EA process and meet the legislative requirements of federal EA legislation, northern legislation and land claim agreements. For example, ECCC works in conjunction with provinces that are applying for substitution or exemption from CEAA 2012, to ensure that standards are met and high-quality, reliable assessments are carried out. ECCC also consults with various stakeholders, including Indigenous groups, for reasons such as statutory and contractual obligations, policy and good governance and the common law duty to consult. Specifically, consultations are undertaken to provide stakeholders with an opportunity to comment on issues such as the potential environmental effects of the project and how they should be included in the EA and the potential impacts of a project on potential or established Aboriginal or Treaty rights. Additionally, some of EA Program's research is conducted in partnership with external academics or other federal departments.

Resource allocation

Table 3 identifies the financial expenditures for Sub-program 1.3.2, Ecosystem and Environmental Assessment, by branch and type of expenditure, for the period from fiscal year 2011 to 2012 to fiscal year 2016 to 2017. The scope of Sub-program 1.3.2 is broader than the EA Program, and therefore the expenditures presented include both expenditures related to the EA Program and other activities pertaining to ecosystem assessment, including research related to wildlife toxicology.

While Table 3 also shows Grants and Contributions (G&C), G&Cs allocated for the EA Program are primarily used to support activities beyond the scope of this evaluation, such as activities associated with wildlife toxicology, the Canadian Co-operative Wildlife Health Centre, which contributes to wildlife toxicology through its work on the Wildlife Disease Strategy and policy and monitoring through CWS.

Table 3: financial expenditures for Program Alignment Architecture, Element 1.3.2: Ecosystem and Environmental Assessment

	2011 to 2012	2012 to 2013	2013 to 2014	2014 to 2015	2015 to 2016	2016 to 2017
	Actuals $	Actuals $	Actuals $	Actuals $	Actuals $	Actuals $
Environmental Protection Branch (EPB) (formerly Environmental Stewardship Branch)						
Salary (and EBP)	6,953,129	11,935,964	13,731,440	12,633,610	11,392,066	11,011,544
O&M	1,749,017	1,559,123	1,350,145	998,030	825,903	799,018
VNR	0	0	0	0	(66,148)	(48,247)
Capital	26,339	0	0	0	0	0
G&C	400,000	0	50,000	0	510,000	0
FTE	0	112	110	111	105	105
Total	**9,128,485**	**13,495,087**	**15,131,585**	**13,631,640**	**12,661,821**	**11,762,315**
Science and Technology Branch (STB)						
Salary (and EPB)	3,019,419	3,918,510	5,706,951	5,063,718	4,825,778	6,320,585
O&M	713,646	1,672,859	1,542,925	1,209,342	1,810,458	5,144,832
VNR	0	0	0	0	(1,102,430)	(3,555,465)
Capital	1,062,860	375,390	866,587	614,365	217,844	367,006
G&C	130,000	70,000	3,000	155,000	223,764	220,000
FTE	0	47	58	53	52	75
Total	**4,925,925**	**6,036,759**	**8,119,463**	**7,042,425**	**5,975,414**	**8,496,958**
Other (Meteorological Service of Canada (MSC), Strategic Policy Branch (SPB) and Regional Directors General Office (RDGO), Corporate Services and Finance Branch (CSFB))						
Salary (and EPB)	0	223,938	214,411	356,870	2,509	0
O&M	2,502,472	2,328,245	2,350,199	2,451,983	2,126,441	2,428,043
VNR	0	0	0	0	0	0
Capital	0	105,000	131,080	0	0	0
G&C	0	0	0	0	0	0
FTE	0	2	1	3	0	0
Total	**2,502,472**	**2,657,183**	**2,695,690**	**2,808,853**	**2,128,950**	**2,428,043**
Total PAA Element 1.3.2 Ecosystem and Environmental Assessment						
Salary (and EPB)	9,972,548	16,078,412	19,652,802	18,054,198	16,220,353	17,332,129
O&M	4,965,135	5,560,227	5,243,269	4,659,355	4,762,802	8,371,893
VNR	0	0	0	0	(1,168,578)	(3,603,712)
Capital	1,089,199	480,390	997,667	614,365	217,844	367,006
G&C	530,000	70,000	53,000	155,000	733,764	220,000
Total	**16,556,882**	**22,189,029**	**25,946,738**	**23,482,918**	**20,766,185**	**22,687,316**
Total FTE	**0**	**161**	**169**	**167**	**157**	**180**

Source: ECCC financial data.

Appendix B: program expected results

Program expected results were used in the evaluation to assess performance. These outcomes were identified as part of the development of the performance information profile for the Environmental Assessment Program, which is a requirement under the 2016 Treasury Board Policy on Results.

Direct outcomes

- ECCC specialist/expert information or knowledge are reflected in the decision makers' recommendations and conclusions
- Decision makers' final EA documents appropriately characterize environmental effects and mitigation relevant to ECCC mandate and use appropriate methodologies
- Incorporation of ECCC recommendations into environmental assessment policies and frameworks

Intermediate outcomes

- Significant residual adverse environmental effects within ECCC's mandate are addressed in the EA approval process, including any required follow-up
- Increased effectiveness and efficiency of EA processes

Final outcome

- Reduced environmental impact from projects subject to environmental assessment

Appendix C: evaluation strategy

Purpose and scope

This evaluation was conducted to meet the needs of senior management. An evaluation of the Environmental Assessment Program (EA Program) was not mandatory under the requirements of the 2016 Treasury Board Policy on Results. This evaluation addresses the relevance and performance of EA Program activities over a five-year period, from fiscal year 2012 to 2013 to fiscal year 2016 to 2017.

The following activities were scoped out of this evaluation:

- ECCC's participation in the Major Projects Management Office Initiative (MPMOI)
- ECCC's participation in the Oil Sands Monitoring Program
- G&C expenditures related to ecosystem assessment activities
- Scientific activities related to ecosystem assessment, including wildlife toxicology, which are also undertaken as part of the Ecosystem and Environmental Assessment Sub-program (Program Alignment Architecture sub-program 1.3.2)

Evaluation questions

The evaluation addressed the following questions. Many of the questions and issues explored by the evaluation are based on issues identified in a 2013 pre-evaluation assessment and scoping interviews undertaken as part of the planning phase for this evaluation.

Relevance
Continued need for the program: Assessment of the extent to which the program continues to address a demonstrable need and is responsive to the needs of Canadians • Is there a continued need for the program? **Alignment with government priorities:** Assessment of the linkages between program objectives and (i) federal government priorities and (ii) departmental strategic outcomes • Does the program align and support the past and current Government of Canada priorities, including the priorities of key contributing federal departments? Are there gaps? • Does the program address Environment and Climate Change Canada's strategic outcomes? **Alignment with federal roles and responsibilities:** Assessment of the role and responsibilities for the federal government in delivering the program • Are current roles and responsibilities of the federal government appropriate in delivering the program?

Performance
Achievement of expected results: Assessment of progress towards expected results, with reference to performance targets and program reach; Assessment of program design, including the linkage and contribution of products to results
To what extent has the EA Program made progress towards the following expected results?
Direct outcomes
• ECCC specialist/expert information or knowledge are reflected in the decision makers' recommendations and conclusions • Decision makers' final EA documents appropriately characterize environmental effects and mitigation relevant to ECCC mandate and use appropriate methodologies • Incorporation of ECCC recommendations into environmental assessment policies and frameworks
Intermediate outcomes
• Significant residual adverse environmental effects within ECCC's mandate are addressed in the EA approval process, including any required follow-up • Increased effectiveness and efficiency of EA processes
Final outcome
• Reduced environmental impact from projects subject to environmental assessment
Efficiency: Assessment of resource use in relation to producing deliverables and progress towards achieving expected results
• Is the program designed and delivered as intended? • Is the governance structure clear and well-understood? Does the governance structure support integrated planning and priority-setting? • Are performance data being collected and reported? If so, is this information being used to inform senior management and decision makers? • Are program resources commensurate with expected results? • Is the program delivered in an efficient manner, or do areas for possible improvement exist?

Evaluation approach and methodology

The findings and conclusions presented in this document were based on four data collection methodologies:

- document review
- key informant interviews
- case studies
- file review

The evidence gathered from these four methodologies was cross-referenced and used to develop the evaluation findings and conclusions.

Document review

The document review contributed evidence related to the majority of the evaluation questions. It involved the review and analysis of approximately 350 individual documents. Relevant documentation included departmental performance reports (DPR), reports on plans and priorities (RPP), federal Speeches from the Throne and budget reports, annual reports, financial information, minutes from committee meetings, relevant legislation, internal communications and other materials provided by the EA Program.

In addition, the Audit and Evaluation Branch (AEB) completed a targeted document review to compare the approaches taken by various departments in the provision of expertise under CEAA 2012. Four departments, namely ECCC, Natural Resources Canada (NRCan), the Department of Fisheries and Oceans (DFO) and Health Canada, were selected for this comparison, since each department has a mandate as a federal authority under CEAA 2012. The Audit and Evaluation Branch reviewed each department's internal documentation containing information about processes related to the provision of advice and expertise in support of EAs, as well as relevant publicly-available information. For each department, the review examined:

- legislative, policy and regulatory mandates
- program delivery
- governance
- information management and internal tools and guidance
- partnerships and/or cooperative agreements[24]

Key informant interviews

Key informant interviews were used to solicit informed opinions and observations on the evaluation questions from various stakeholders involved in or familiar with the EA Program. The key informant

[24] Processes related to reviews of environmental effects on federal lands and lands outside of Canada (i.e., section 67 of CEAA 2012) and expertise provided to Northern review boards in support of Northern EA regimes were scoped out of this comparative review.

interviews contributed qualitative evidence to address almost all evaluation questions. Three interview guides were designed that took into consideration the role of the respondents and their expected contribution to the evaluation. The interview guides included a detailed guide for program managers and staff, a tailored guide for internal ECCC partners and a guide for external stakeholders, including both federal and non-federal partners. A total of 36 interviews were conducted with 43 key informants. Interviews were conducted between April 10, 2017 and May 15, 2017. Table 7 provides the distribution of completed interviews by respondent category.

Table 4: distribution of interviews by key informant category

Key informant category	# of interviews	# of key informants
Program staff and managers	10	10
ECCC internal partners (including experts from STB, EPOD, CWS and MSC)	5	7
External federal partners and stakeholders (including Responsible Authorities)	10	11
Non-federal stakeholders involved in the CEAA process (including provinces and private sector proponents)	4	6
Northern review boards and other stakeholders participating in northern environmental assessments	7	9
Total	**36**	**43**

Table 5: Scale used for commenting on interview responses

Descriptor used	Corresponding percentage of respondents
No key informants/none	0%
A few key informants	Less than 25%
Some/a minority of key informants	25–44%
About half	45–55%
A majority of key informants	56–75%
Most key informants	76–95%
Almost all key informants	95–99%
All key informants	100%

Case studies

Case studies allow for an in-depth look at selected program activities. While case study results are not intended to be generalizable to the program overall, they provide a useful "ground level" view of program operations, as well as a specific challenges and successes that have been encountered during program delivery.

For this evaluation, case studies focused on the EA Program's role in two EAs: the Jackpine Mine Expansion Project EA, conducted under the authority of the Canadian Environmental Assessment (CEA) Agency and the Trans Mountain Pipeline Expansion (TMX) EA, conducted under the authority of the National Energy Board (NEB). These EAs were selected, in consultation with the EA Program, for the following reasons:

- Both EAs were completed subsequent to the enactment of the Canadian Environmental Assessment Act (CEAA), 2012 and provided an in-depth look at program activities under two Responsible Authorities (RAs) established under CEAA 2012.
- Both EAs were complex, large in scope and involved EA Program resources at various stages in the EA process.
- Both EAs were completed during the evaluation period. The TMX EA was completed entirely (from start to finish) within the evaluation period, while the Jackpine EA began prior to the evaluation period.
- The Jackpine EA was the first project in which ECCC contributions to enforceable conditions (a feature established by the enactment of CEAA 2012) were included in the Decision Statement.

Each case study involved two lines of evidence: a targeted document review and key informant interviews with program representatives and external stakeholders. For both case studies, the document review portion comprised a review of the following types of documents:

- Background information available on the websites of RAs
- Final EA documents, including the final EA report and Decision Statement
- Approved EA Program contributions submitted at various stages of the EA process
- Internal communications providing evidence of requests for expertise, made primarily by EA Coordinators
- Progress reports or other follow-up information

Two interview guides were developed for the case study interviews: one for program representatives and one for external stakeholders. For the Jackpine case study, six key informant interviews were carried out with a total of eight participants. These interviews included six representatives from the Environmental Protections and Operations Directorate – Environmental Assessment (EPOD-EA) who worked closely on the Jackpine EA; one representative of the CWS with knowledge of the CWS's contributions to the EA Program in support of the Jackpine EA; and one representative of the CEA Agency, which was the RA for this EA.

For the TMX case study, five individual key informant interviews were carried out, involving two representatives from EPOD-EA who worked extensively on the TMX EA and three representatives of expert groups outside of EPOD-EA who interacted closely with the EA Program and supported the EA with contributions of expertise.

File review

The final line of evidence for this evaluation was a file review of all EAs under *CEAA* 2012 regimes that were both initiated and completed within the evaluation timeframe. This file review contributed evidence in relation to the design, delivery and the effectiveness of the EA Program. In particular, the file review addressed indicators related to the program's ability to meet established

timelines for review and comment, the uptake of EA Program recommendations and the influence of advice on EA decisions.

A total of 15 EAs fulfilled the criteria for the review. This total includes:

- eight EAs under the authority of the CEA Agency
- three substituted EAs
- five EAs under the authority of the NEB

No EAs from the Canadian Nuclear Safety Commission or the Northern EA regimes fell within the evaluation timeframe.

The following types of projects were scoped out of the file review:

- transitional Projects completed under pre-CEAA 2012 legislation
- projects designated as terminated, cancelled or on hold
- projects for which it was determined that an EA was not required
- projects designated as active or in progress

The 15 EAs reviewed involved 14 separate proponents. NOVA Gas Transmission Ltd. (NGTL), a wholly owned subsidiary of TransCanada PipeLines Limited, proposed three projects in this timeframe. The highest number of projects were based in British Columbia (6 projects), followed by Alberta (3 projects), Saskatchewan, Ontario and Nova Scotia (2 projects each) and Quebec (1 project). The majority of the projects (9) were in the oil and gas sector. Six projects were in the mining and processing sector, while one was in the electrical generation sector. All projects are listed as "completed" in the CEA Agency registry and ECCC provided expertise on every project considered in the file review.

Appendix D: ratings summary

Criteria	Expectations met	Further work required	Priority attention required	Unable to assess
Relevance				
Is there a continued need for the program?	•			
Does the program align with federal government priorities?	•			
Does the program align with federal government jurisdiction?	•			
Achievement of expected results				
To what extent has the EA Program met its intended outcomes?				
Direct outcomes • ECCC specialist/expert information or knowledge are reflected in the decision makers' recommendations and conclusions • Decision makers' final EA documents appropriately characterize environmental effects and mitigation relevant to ECCC mandate and use appropriate methodologies • Incorporation of ECCC recommendations into environmental assessment policies and frameworks	•	• •		
Intermediate outcomes • Significant residual adverse environmental effects within ECCC mandate are addressed in the EA approval process, including any required follow-up • Increased effectiveness and efficiency of EA processes		• •		
Final outcome • Reduced environmental impact from projects subject to environmental assessment				•
Design and delivery criteria				
Is the program designed and delivered as intended?	•			
Is the governance structure clear and well-understood? Does the governance structure support integrated planning and priority-setting?		•		

Criteria	Expectations met	Further work required	Priority attention required	Unable to assess
Are performance data being collected and reported? If so, is this information being used to inform senior management and decision makers?		•		
Are program resources commensurate with expected results?		•		
Is the program delivered in an efficient manner, or do areas for possible improvement exist?		•		

Appendix E: references

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